

IN THE CLAIMS

1. (currently amended) A network relay apparatus comprising:

a routing information gathering unit for determining the maximum transmission unit of a transmission path along a route over which packets are to be transmitted; and

a combining unit for assembling a combined packet by combining packets up to a length that does not exceed the maximum transmission unit of said transmission path; and

a routing processing unit for selecting a path having the largest maximum transmission unit as a path for said combined packet from among a plurality of transmission paths to the same destination.

2. (original) An apparatus according to claim 1, wherein said combined packet carries as a destination address the address of an endpoint of the route over which said packets are transmitted in combined form, said apparatus further comprising:

a disassembling unit for disassembling a received combined packet into individual packets if the destination address of said received combined packet matches the address of said apparatus.

3. (canceled)

4. (currently amended) An apparatus according to claim 3 1, wherein said routing processing unit selects a path having the largest maximum transmission unit as a path for said combined packet from among a plurality of transmission paths to the same destination by excluding the path along the shortest route.

5. (original) An apparatus according to claim 1, further comprising a combine allow/disallow determining unit for determining, based on a packet attribute, whether or not said combining unit should be made to combine packets.

6. (original) An apparatus according to claim 1, further comprising a reassembling unit for disassembling a received combined packet into individual packets and reassembling the same into a combined packet of a length not exceeding the maximum transmission unit of the currently selected path if the length of said received combined packet exceeds said maximum transmission unit.

7. (currently amended) A method of combining packets, comprising the steps of: determining the maximum transmission unit of a transmission path along a route over which packets are to be transmitted; and

assembling a combined packet by combining packets up to a length that does not exceed the maximum transmission unit of said transmission path; and

selecting a path having the largest maximum transmission unit as a path for said combined packet from among a plurality of transmission paths to the same destination.

8. (original) A method according to claim 7, wherein said combined packet carries as a destination address the address of an endpoint of the route over which said packets are transmitted in combined form, said method further comprising the step of:

disassembling a received combined packet into individual packets if the destination address of said received combined packet matches the address of an apparatus that received said combined packet.

9. (canceled)

10. (currently amended) A method according to claim 9 7, wherein in said selecting step, a path having the largest maximum transmission unit is selected as a path for said combined packet from among a plurality of transmission paths to the same destination by excluding the path along the shortest route.

11. (original) A method according to claim 7, further comprising the step of determining, based on a packet attribute, whether to combine or not combine packets.

12. (original) A method according to claim 7, further comprising the step of disassembling a received combined packet into individual packets and reassembling the same into a combined packet of a length not exceeding the maximum transmission unit of the currently selected path if the length of said received combined packet exceeds said maximum transmission unit.